Argument
Responses to Final Office Action Line Items

Response to Office Action Item 2

The Viton reference has been removed from the office action response pursuant to the examiner's request. With respect to the summary of the invention, the Viton reference was removed. However, changes were made so that the amendment reflects the original reference of the preferred embodiment being a low tensile strength elastomer. Unfortunately, the specific preferred embodiment of Viton was removed as it was deemed new matter by the examiner. The incorrect reference to fluorinated polymer, a film and not an elastomer, as being the specific preferred embodiment was removed, as it was an incorrect reference.

With respect to the specification changes contained in this amendment, the amendment merely references the preferred embodiment of the exterior layer as being a low tensile strength elastomer, a point that was already contained in the original application under the summary of the invention. Consequently, there would be an antecedent basis for this reference and thus it would not be deemed new matter. The applicant has also removed the specific embodiment reference of Viton and removed the incorrect reference of the non elastomer fluorinated polymer.

With respect to the claims, the applicant merely references the preferred embodiment of the outer most low outgassing layer as being a low tensile strength elastomer as it was referenced in the original application under the summary of the invention. As stated above it should not be deemed new matter and it has antecedent basis in both the original summary of the invention and the revised specification that reflects said summary.

Response to Office Action Item 4

As stated in the Response to Office Action Item 2, the specification has been modified to reflect the preferred embodiment as cited in the original summary of the invention. Claim 3 has been modified to reflection this change. Consequently, Claim 3 as amended now has antecedent basis in the specification.

Response to Office Action Item 6

As stated in the prior office action responses, Johnson is not dispositive on this invention as it does not disclosure a damper as the instant invention. Granted Johnson does have a damper with multiple layers, but the similarities between the two dampers end at that point. The Johnson does not describe, disclosure, teach or claim a dampering material performing the tri-functional role of being a non-tacky barrier and a damper while also providing for structural integrity. Had Johnson done so the patent would have claimed or at least referenced this tri-functional role concept of using a single material.

To the contrary, Johnson has two separate materials performing these three functions that the instant invention one requires one material.

The instant invention is a multiple layered damper as with Johnson but is different and is a novel improvement over Johnson for a number of reasons. First, it does not require an external film to function as a tack free barrier as the Johnson invention requires. Second, the instant damper's external layer of a low tensile strength elastomer[2] provides structural integrity to the damper. Third and most critically, the low tensile strength elastomer provides the novel tri-functional role of being a damper, a non-tacky barrier and a means to provide structural integrity to the damper. On the contrary the Johnson design is saddled with having to use two materials to provide these three functions; namely the damper to dampen, and the non-dampening external film to provide the non-tacky surface[3] and structural integrity of the damper. In sum, the instant invention is novel improvement over Johnson as it uses one less element to accomplish the same task while improving on the same by having one material accomplishing the same goal that Johnson requires two materials to accomplish.

If you have any questions regarding this office action please do not hesitate to contact me.

Sincerely,

Thomas E. Hagar

Thomas E. Hagar
Registration No. 42,617

[2] Viton is the particular low tensile strength elastomer used in this tri-functional role in the applicant's application of the invention with success. Unfortunately, the attorney and application made an incorrect reference in the original application and was not able to make a correction to Viton as the examiner had deemed the correction new matter in her Final Office Action and confirmed in a phone consultation on February 18, 2004. As such, the application does not have access to this specific reference in this response.

[3] Although the applicant does not specifically claim a tacky free damper, the lack thereof should not be dispositive on this amendment. The applicant does disclosure, claim and argue that the instant invention is a novel improvement over Johnson where, at a minimum, the low tensile strength elastomer of the instant invention performs two functions (dampering and structural integrity) where Johnson describes and requires two materials. The extra benefit of providing a tack free surface is merely superfluous.

Summary of the Invention

On Page 5, Line 8, delete "such as fluorocarbon elastomer such as Viton"

Replacement Paragraph incorporated with above changes

The paragraph below starts on Page 4 and ends on Page 5 of the Application

The present invention is directed to dampers that operate in a vacuum environment where the reduction of outgassing is critical. The novel design incorporates the combination of multiple layers of highly damped and low outgassing materials. Typically, dampening materials that possess a high dampening quality possess poor outgassing performance. While on the other hand, dampening materials that possess excellent outgassing performance typically have poor dampening qualities. The present invention solves this problem by joining different types of dampers in just the right ratio for a given environment to produce a damper that provides high dampening with low outgassing. The highly damped materials are completely disposed within the low outgassing materials thereby producing a product that has the desired dampening qualities while at the same time significantly reducing the negative side effects of outgassing volatiles. The highly damped layers are made from a highly damped material with the preferred embodiment being a low modulus high damped elastomeric polymer. The exterior layers are made from a low outgassing dampening material with sufficient structural integrity to stiffen the damper. The preferred embodiment of the exterior layer would be a low tensile strength elastomer material ~~such as fluorocarbon elastomer such as Viton~~.

Detailed Description of the Preferred Embodiment

On Page 7, Last Line, delete "being a fluorocarbon elastomer such as Viton" and substitute - - being a low tensile strength elastomer material - -.

On Page 7, Last Line, after the word "properties" add - - with sufficient structural integrity to stiffen the damper - -.[1]

Replacement Paragraph incorporated with above changes

The paragraph appear at the bottom of Page 7 of the Application

The highly damped layer 12 is made of any highly damped material with the preferred embodiment being a low modulus high damped elastomeric polymer. The low outgassing layer 14 is made from a dampening material that possesses low outgassing properties with sufficient structural integrity to stiffen the damper with the preferred embodiment being a low tensile strength elastomer material. ~~being a fluorocarbon elastomer such as Viton.~~

[1] This change reflects the reference in the original summary of the invention where the preferred embodiment of the exterior layer is of "sufficient structural integrity so as so as to stiffen the damper." This reference appears on line 6 of page 5 of the original summary of the invention.

Complete list of Claims as Amended

Claim 1 (currently amended): A Multiple Layered Highly Damped Vibration and Shock Damper with Low Outgassing Properties comprising a multiple of highly damped layers and low outgassing layers;
where said highly damped layers are completely disposed within said low outgassing layers;
where each of said highly damped layers and said low outgassing layers have an interior and exterior surface with the exception of the innermost highly damped layer which only has a said exterior surface;
where the said layers are oriented in such a manner that the exterior surface of a given layer is connected to the interior surface of an adjoining layer;
where the outer most low outgassing layer is of sufficient structural integrity to stiffen the damper.

Claim 2 (not amended in this action): A Multiple Layered Highly Damped Vibration and Shock Damper with Low Outgassing Properties as in claim 1 wherein at least one of the highly damped layers is made of a low modulus elastomeric polymer.

Claim 3 (currently amended): A Multiple Layered Highly Damped Vibration and Shock Damper with Low Outgassing Properties as in claim 1 wherein the outer most low outgassing layer is made from a low tensile strength elastomer material ~~at least one of the low outgassing layers is made of a fluorocarbon elastomer~~.

Claim 4 (previously canceled)

Claim 5 (previously canceled)

Interview Summary

Application No. 10/090,953 Applicant: Larson, Erik S.
Examiner: Lan Nguyen Art Unit: 3683

Participants in Interview: Lan Nguyen and Thomas Hagar

Date of Interview: February 18, 2004 Type of Interview: Telephonic

Exhibits Shown: N/A

Claims Discussed: 1 and 3 Prior Art Discussed: Johnson et at.

Agreement with Respect to the Claims: N/A

Substance of Interview:

The new matter rejection of 12/11/03 office action was discussed. The new matter rejection dealt with correction made by the applicant to correct a mistaken reference to a preferred embodiment. Applicant advocated that as it was a correction it should not be deemed new matter but the examiner viewed it as new matter.

Options of filing an RCE and/or a CIP were also discussed.

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